CABINETMAKING, 46.0400.4	
STANDARD 1.0—DEMONSTRATE BUSINESS PRACTICES FOR A WOODWORKING BUSINESS	
1.1	Estimate supplies, materials and labor costs
1.2	Develop a materials order from a cut list and plan
1.3	Explain product quality standards
1.4	Manage customer relations
STANDARD 2.0—SAFE WOOD PRODUCTS MANUFACTURING	
2.1	Work safely in a woodworking shop
2.2	Maintain safe work attire and appearance
2.3	Wear appropriate personal protective equipment (e.g., eye protection, ear protection, impact hat, etc.)
2.4	Use equipment safety features correctly
2.5	Use proper lifting techniques
2.6	Examine health-related problems that may result from exposure to hazardous materials in the woodworking shop
2.7	Examine principles and methods of dust collection
2.8	Adhere to government regulations (e.g., OSHA, EPA, DNR) in the woodworking shop
2.9	Adhere to lockout /tagout rules and procedures
2.10	Handle, use and store materials according to MSDS sheets
2.11	Apply fire safety rules and procedures
STANDARD 3.0—PERFORMING BASIC CABINETMAKING SKILLS	
3.1	Solve woodworking problems using basic math
3.2	Solve manufacturing and construction word problems
3.3	Calculate linear feet, square feet, and board feet
3.4	Tally accurately
3.5	Measure accurately

These technical knowledge and skill standards were validated by a Skill Standards Validation Committee on October 25, 2007, and used in the adaptation, adoption, and development of test items for pilot testing in Spring 2008.

3.6	Lay out straight and angled cuts accurately
3.7	Convert standard and metric measurements
3.8	Check stock and/or assemblies for squareness.
3.9	Determine levelness and plumbness of surfaces, using a level.
3.10	Handle/store materials.
3.11	Recognize materials.
3.12	Maintain/make minor adjustments to hand tools.
STANDARD 4.0—PRACTICE SAFE AND EFFECTIVE USE OF HAND AND PORTABLE POWER TOOLS	
4.1	Use steel rules/tapes, marking gauges and T-bevels correctly
4.2	Utilize planes and cabinet scrapers to smooth surfaces
4.3	Utilize wood chisels to notch or mortise stock
4.4	Drive and set nails and screws
4.5	Fasten materials using a pneumatic stapler or nailer
4.6	Utilize a circular saw to make straight, beveled and compound angle cuts
4.7	Utilize a saber/jig saw to plunge/cut curves
4.8	Drill holes with a portable power drill
4.9	Utilize a power drill to bore holes to a specified depth
4.10	Create pocket screwed joints using a drill with jig
4.11	Utilize a router to shape edges and cut a groove, dado and rabbet
4.12	Utilize a router with a dovetail jig
4.13	Utilize plate and biscuit joiners for square and angled joints
4.14	Utilize a sander for roughing and finishing
4.15	Clean and maintain hand and portable power tools
4.16	Utilize a belt sander and grinder to scribe cut a product

STANDARD 5.0—PRACTICE SAFE AND EFFECTIVE USE OF STATIONARY WOODWORKING MACHINES	
5.1	Utilize a table saw to make rip, cross, miter, bevel and groove cuts
5.2	Change and set up blades on a table saw
5.3	Utilize a radial saw to make cross, miter and compound angle cuts
5.4	Change blade and adjust squareness of a radial saw
5.5	Cut vertical with a panel saw
5.6	Change blade on a panel saw
5.7	Cut arcs and circles with a band saw
5.8	Set up, adjust and bore using a drill press
5.9	Utilize a jointer to square, bevel, chamfer, or flatten stock
5.10	Utilize a router in a router table
5.11	Utilize a surfacer to plane and smooth surfaces
5.12	Create edges and curves utilizing a shaper with a fence, collar or dead stop
5.13	Utilize a power feed unit with a table saw, shaper or jointer
5.14	Utilize a bench morticer
5.15	Finish edges using an edge bander
5.16	Set up and utilize a lathe for woodturning
STANDARD 6.0—EXAMINE COMPUTERS AND COMPUTER-CONTROLED EQUIPMENT IN WOODWORKING	
6.1	Find information on (Computer Aided Drafting and Design) CADD drawings
6.2	Investigate (Computer Aided Manufacturing) CAM software for programming Computer Numerical Control (CNC) manufacturing equipment
6.3	Explore CNC equipment and equipment operations
6.4	Demonstrate CNC equipment operation (actual or simulated)
6.5	Enter CNC programs and run a machine to produce a part
6.6	Explore the application of 3-dimensional technology in woodworking

STANDARD 7.0—INTERPRET PLANS AND PRINTS	
7.1	Extract information from plans and specifications
7.2	Read and interpret a floor plan
7.3	Verify design plans with field measurements
7.4	Interpret a cut sheet
7.5	Create a material list
7.6	Specify wood stock for compatibility of grain and color
7.7	Construct and install wood products from plans
STANDARD 8.0—CUT AND SHAPE STOCK	
8.1	Mill rough lumber to create S4S stock
8.2	Cut panelized materials to size and shape
8.3	Manufacture woodturnings
8.4	Manufacture wood moldings
8.5	Re-saw wood parts when required
STANDARD 9.0—USE WOOD VENEERS	
9.1	Cut and edge veneer for joining
9.2	Join veneer sheets with glue and tape
9.3	Use and machine wood panel products (i.e., particle board, MDF)
9.4	Apply veneer with appropriate adhesive using a platen or vacuum press
9.5	Trim excess veneer
9.6	Prepare veneer surface for finishing
STANDARD 10.0—DEMONSTRATE PRINCIPLES OF JOINERY	
10.1	Explain the purpose and appropriate applications of common joints
10.2	Layout and make butt joints using dowels, screws, biscuits, and/or pocket screws
10.3	Layout and make a dado joint

10.4	Layout and make a rabbet joint
10.5	Layout and make a half-lap joint
10.6	Layout and make a miter joint
10.7	Layout and make a tongue and groove joint
10.8	Layout and make a mortise and tenon joint
10.9	Layout and make a dovetail joint
10.10	Layout and make a finger joint
STANDARD 11.0—ASSEMBLE WOOD PRODUCTS USING FASTENERS, ADHESIVES AND HARDWARE	
11.1	Explain the purpose and appropriate applications of common fasteners
11.2	Use various fasteners and Ready To Assemble (RTA) connectors in manufacturing a wood product
11.3	Explain the purpose and appropriate applications of common woodworking adhesives
11.4	Use adhesives appropriate to the application
11.5	Apply clamping devices.
11.6	Assemble drawer components.
11.7	Use fasteners and levelers to install products
11.8	Fasten stock with metal fasteners (for example, nails, screws, staples, and other mechanical fastners).
11.9	Glue boards edge to edge.
11.10	Construct case/box.
11.11	Assemble panel doors.
11.12	Attach molding/trim.
11.13	Fasten top to casework.
11.14	Install cabinet hardware.
11.15	Reinforce joints with block.
STANDARD 12.0—APPLY WOOD VENEERS AND PLASTIC LAMINATES	
12.1	Cut laminates with appropriate saw blades and router bits

12.2	Seam two pieces of laminate
12.3	Apply adhesive.
12.4	Apply edge banding.
12.5	Apply laminate to core.
12.6	Apply wood edges.
12.7	Cut plastic to size.
12.8	Fit plastic laminate joints.
12.9	Trim edges.
12.10	Machine/fabricate solid surface materials.
STANDARD 13.0—DEMONSTRATE FINISHING MATERIALS AND PROCESSES	
13.1	Explain the purpose and appropriate applications of various types of finishes and finishing processes
13.2	Follow a finish schedule
13.3	Apply filler to a wood surface
13.4	Apply a wash coat to a wood surface
13.5	Apply a seal coat to a wood surface
13.6	Select and use appropriate abrasive types and grit sizes
13.7	Stain a wood surface
13.8	Apply clear coating finishes to wood surfaces
13.9	Apply pigmented finishes to wood surfaces
13.10	Apply safe and approved (OSHA, EPA, DNR) methods for cleaning finishing tools
13.11	Remove excess glue.
13.12	Swell dents.
13.13	Repair blemishes/touch up finishes.
13.14	Select finishing materials for compatibility.